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ZANZIBAR PROTECTORATE.

ANNUAL REPORT

ON THE

AGRICULTURAL DEPARTMENT

FOR THE YEAR,

1916.

ZANZIBAR.

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AGRICULTURAL DEPARTMENT REPORT FOR 1916.

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ZANZIBAR PROTECTORATE.

REPORT ON THE AGRICULTURAL DEPARTMENT FOR THE YEAR 1916.

SECTION I.

General Progress.—In submitting this Report the Director of Agriculture wishes to point out that the existing war conditions have prevented the Department from doing work other than that of a routine nature.

He himself has since 1914 acted as Chief Supply Officer for the Protectorate; and this has occupied much of his time: while most of his Staff in the central office have devoted a large portion of their time to Supply office work.

The Director of Agriculture returned from leave in August 1916.

While at home he went thoroughly into the questions of artificial drying of copra with the Imperial Institute and the various firms who manufacture mechanical drying machinery and inspected a patent drier which was erected for his inspection, and the purchase of which has been recommended.

In dealing with clove crop statistics it has to be remembered that the end of the year occurs as a rule in the middle of the clove crop season.

The season's period is reckoned from the 1st July to the 30th June of the following year.

In the 1915 Report, the season's figures could not be entered, owing to that Report being submitted before the end of June.

The 1915/1916 figures are given here: and this Report gives the complete season's figures for 1916/1917.

A satisfactory and somewhat unexpected feature of the harvest—and the remark applies equally to copra—was the ability to dispose of the produce at a satisfactory price; and for the buyer to get it away.

Some difficulties existed at first owing to uncertainties of shipping; and the Government in consequence had to make abatements on its rents; but the situation soon became easier, and plantation-owners had ultimately no ground of complaint.

The price of stems, as illustrated in the table, has been such as to make it not worth while to dry them.

In former years a careful owner could pay his harvest expenses from the proceeds of sale of his stems.

The Director of Agriculture has been in correspondence with the Imperial Institute over this matter; but at present it does not appear as if any improvement can be hoped for.

Most of the stems went to the Hamburg market when they were ground into powder and used for human consumption, and for the distillation of the volatile oil.

The Imperial Institute points out that no market can be obtained at home for the former purpose: and while we cannot get the stems home for distillation, better prices cannot be expected.

The yield of oil from stems is about one third of that from the dried bud; so the present price of 4 annas a frasila—there is practically no market with cloves at Rs. 16 a frasila—is quite out of proportion.

Two Decrees are administered by the Department.

1. *Plantations Preservation Decree.*—The attention of all plantation-owners has been drawn to this by the posting of a memorandum explanatory of its terms on all clove and coconut plantations in the Arab districts.

The Wahadimu districts have also been personally visited by the Inspectors.

A memorandum was also sent to the Arab newspapers.

No land-owner can therefore plead ignorance.

It remains to be seen whether the Decree will be really useful in its present form, or whether its wording will compel the Courts to call for such evidence of intention as to render the Decree unworkable owing to the number of inspections and warnings necessary.

2. *Agricultural Produce Permit Decree.*—This still continues to serve a useful purpose: though difficulties are experienced in finding literate people who can issue permits.

In view of the illiteracy of many of the village headmen, the Director of Agriculture is now permitting land-owners to be public Permit Book holders who have power to issue Permits to a certain number of neighbouring land-owners.

TABLE I.

Clove and Copra Registers issued in 1916.

Description	Series	Printed in language	Registers issued		
			Zanzibar	Pemba	Total
Cloves	...	A	English	1	1
"	...	B	Gujerati	129	129
"	...	C	Arabic	85	85
Copra	...	D	English	1	1
"	...	E	Gujerati	51	51
"	...	F	Arabic	85	85
Total ...			Nil *	352	352

* The previous year's issue was sufficient to meet the book-keeping requirements of the dealers.

TABLE II.

Produce Permit Books issued in 1916.

Series	Island	District	Books issued		
			Public	Private	Total
1	Zanzibar	Mwera	139	21	160
2	"	Chwaka	24	Nil	24
3	"	Mkokotoni	224	9	233
4	Pemba	Mkoani	274	11	285
5	"	Chake-Chake	292	15	307
6	"	Weti	467	34	501
Total ...			1420	90	1510

SECTION II.

CLOVE HARVEST.

Par. 1. Course of Harvest.—The crop in both islands was good compared with former years: 511,635 frasilas of 35 pounds being harvested.

The Zanzibar crop was considerably above the average.

The labour difficulties were at first, as usual acute, and a considerable quantity of cloves were lost.

The recruiting of porters affected this at the commencement, the people being unwilling to leave their villages. Eventually however the greater number of the people came into the field.

Par. 2. Free passes for labourers to Pemba.—A few were issued at first but the Zanzibar crop requiring later all available labour, the issue was discontinued and the Pemba crop was gathered by Pemba people.

Par. 3. Loan to Arabs.—Authority is given to advance a sum of Rs. 40,000 to Arabs in Pemba to enable them to commence picking their crop without having to borrow money from the Indian money-lender.

The money is advanced on personal security only of the borrower, and no interest is charged.

In 1915, 570 people obtained loans of sums varying from Rs. 25 to Rs. 200, the total sum advanced being Rs. 31,640.

In a few cases there are difficulties in obtaining repayment: but as a rule the Arabs repay fairly punctually the sums advanced.

TABLE III.

Course of harvest and deliveries compared with former years.

Months.	1904/05			1905/06		
	Zanzibar * fras.	Pemba fras.	Total fras.	Zanzibar fras.	Pemba fras.	Total fras.
July ..	4541	73	4614	3082	21555	24637
August ..	7238	19093	20331	2241	19010	21251
September ..	6142	71219	77361	1625	14290	15915
October ..	4466	114307	118773	7720	10581	18301
November ..	5678	10793	86471	11679	12355	24930
December ..	6436	95689	102125	18284	17175	35459
January ..	9193	91023	100216	48125	21765	69890
February ..	13644	51051	64705	28884	4738	33622
March ..	9951	51432	61383	17023	2720	19743
April ..	4793	30041	34834	9762	1758	11520
May ..	4786	27473	32258	10789	1817	12606
June ..	4435	28014	32449	19221	1971	21192
Total ..	81213	584208	665521	178435	130635	309070

Months.	1906/07			1907/08		
	Zanzibar fras.	Pemba fras.	Total fras.	Zanzibar fras.	Pemba fras.	Total fras.
July ..	6178	856	7034	13416	10540	23956
August ..	4015	4053	8073	40292	73950	114242
September ..	4539	36824	41363	45812	124007	169819
October ..	7381	54575	61966	33185	114975	148160
November ..	19243	51618	70861	21904	55261	77165
December ..	14032	26516	40548	15975	38818	54793
January ..	4379	15225	19604	10101	30365	40466
February ..	1367	5427	6794	7407	22684	30091
March ..	1232	5580	6812	7557	27944	35501
April ..	400	1027	1427	6477	16214	22691
May ..	109	1302	1411	6145	17754	23899
June ..	129	488	617	5391	9481	14872
Total ..	63004	203496	266500	213662	541993	755655

Months.	1908/09			1909/10		
	Zanzibar fras.	Pemba fras.	Total fras.	Zanzibar fras.	Pemba fras.	Total fras.
July ..	5102	15043	20143	3458	10222	13680
August ..	5934	15222	21156	960	4876	5836
September ..	7534	15929	23463	2133	14847	16980
October ..	15182	20384	53566	3073	32952	36025
November ..	31012	45898	76910	7728	38416	46144
December ..	34003	63029	97032	17906	59509	77415
January ..	34944	100499	135443	34652	62106	96758
February ..	13270	81934	95204	24373	36043	60416
March ..	5552	38924	44276	9196	12558	21764
April ..	3438	21044	24482	3600	9130	12730
May ..	2987	11654	14641	1665	11460	13125
June ..	6969	20131	27001	934	7928	8862
Total ..	165727	449691	615418	109678	300047	409725

* One frasila equal to 35 lbs.

TABLE III.

Course of harvest and deliveries compared with former years.—(contd.)

Months.	1910/11			1911/12		
	Zanzibar * fras.	Pemba fras.	Total fras.	Zanzibar fras.	Pemba fras.	Total fras.
July ..	1519	3113	4632	623	1527	2150
August ..	1054	6334	7388	9248	12642	21890
September ..	2292	25018	27312	17906	64671	82577
October ..	3869	18290	22159	17482	130651	148133
November ..	5992	16601	22593	19024	134417	153441
December ..	4661	12844	17505	17357	74940	92297
January ..	7904	19534	29238	54928	60448	115376
February ..	15986	18204	34190	31081	35580	66661
March ..	4441	8167	12608	21616	22277	43893
April ..	960	2581	3541	16398	19473	35871
May ..	368	5282	5650	9715	13737	23452
June ..	1148	3339	4487	1129	11790	12920
Total ..	50196	193307	189503	216507	582153	798660
Months.	1912/13			1913/14		
	Zanzibar fras.	Pemba fras.	Total fras.	Zanzibar fras.	Pemba fras.	Total fras.
July ..	1567	4466	6023	31445	1634	33079
August ..	771	6926	7697	22930	42571	65501
September ..	2834	24252	27086	9203	111086	120289
October ..	5549	20754	26303	11009	160353	171362
November ..	3048	13719	16768	15511	100476	115987
December ..	2338	5348	7687	13797	52311	66108
January ..	3900	18425	22326	14941	50636	65577
February ..	1091	4317	5409	9743	39089	48832
March ..	1002	3288	4290	6820	33066	39886
April ..	172	2185	2357	4135	17885	22020
May ..	139	330	469	4257	20617	24874
June ..	8607	358	8965	1795	8370	10165
Total ..	31018	104368	135386	145586	638094	783680
Months.	1914/15			1915/16		
	Zanzibar fras.	Pemba fras.	Total fras.	Zanzibar fras.	Pemba fras.	Total fras.
July ..	8193	16044	24237	2194	10832	13026
August ..	8276	9178	17454	2688	5276	7964
September ..	7303	27005	34308	9518	35067	44585
October ..	12093	39765	51858	13097	85877	98974
November ..	11533	31144	42667	17054	143110	160164
December ..	22622	31810	54432	22381	143731	166112
January ..	50421	51247	101668	29875	107908	137783
February ..	32996	48397	81393	21494	60955	82449
March ..	20192	38447	58639	15766	38703	54469
April ..	12276	17632	29908	5556	9700	15256
May ..	6132	9398	15540	1461	7447	8908
June ..	2883	11322	14205	557	6510	7067
Total ..	194920	331389	526309	141641	655116	796757

* One frasila equal to 35 lbs.

TABLE III.

Course of harvest and deliveries compared with former years.—(contd.)

		1916/17		
Months.		Zanzibar fras.	Pemba fras.	Total fras.
July	..	408	8963	9371
August	..	3453	3539	6992
September	..	15121	10130	25251
October	..	20938	29335	50273
November	..	37586	57477	95063
December	..	45693	55391	101084
January	..	38845	68290	107135
February	..	11634	29859	41493
March	..	18177	12577	30754
April	..	9365	8196	17561
May	..	4537	15230	19767
June	..	2959	3932	6891
Total ..		208716	302919	511635

TABLE IV.

Average price of Cloves and Stems.

	1907			1908			1909			1910			1911			1912			1913			1914			1915			1916		
	Rs.	s.	p.	Rs.	s.	p.	Rs.	s.	p.	Rs.	s.	p.	Rs.	s.	p.	Rs.	s.	p.	Rs.	s.	p.	Rs.	s.	p.	Rs.	s.	p.	Rs.	s.	p.
Zanzibar Cloves	10	3	6	9	2	0	8	8	9	11	4	3	12	5	3	14	5	0	14	5	3	10	6	6	9	7	6	10	13	3
Pemba "	9	9	0	8	8	0	8	3	6	10	15	3	10	3	6	13	8	3	14	5	3	9	14	9	8	14	9	9	9	3
Stems	2	6	0	2	6	0	2	0	9	3	0	0	3	0	0	3	14	9	4	5	9	2	8	3	1	3	6	1	0	3

TABLE V.

Proportions between the seasonal yields of Cloves and Stems.

Season	Cloves fras.	Stems fras.	% of stems to cloves.
1904/05	635568	124242	19½
1905/06	308950	78248	25
1906/07	266512	48307	18
1907/08	755634	153562	20
1908/09	614630	121156	19½
1909/10	409925	84547	25
1910/11	192407	38320	20
1911/12	798663	161187	20
1912/13	135391	28389	21
1913/14	783680	145932	18½
1914/15	526309	64179	12
1915/16	796757	89630	11¼
1916/17	511635	69153	13½

Note.—The low percentage of stems to cloves is of course due to the low price of stems, to which but little attention was in consequence paid.

TABLE VI.

Export of Cloves to different Continents from 1910* to 1916 inclusive
(in pounds weight.)

Continent		1910	1911	1912	1913	1914	1915	1916
Europe	...	4800676	7844338	6067460	8789644	5707601	9270001	8386287
America	...	1096215	3510877	2576520	1975518	3499917	4494299	2185000
Asia	...	6758239	8706247	6539807	6772530	7657767	11525332	9531900
Africa	...	128019	199921	68157	275047	105123	135822	179629
Total	...	12783149	20261383	15251944	17812739	16970408	25425454	20282816

* Figures for previous years are given in my 1910 Annual Report-

TABLE VII.

Advances to Arab land-owners for clove-picking.

District	1915		1916	
	Number of people	Amount Rs.	Number of people	Amount Rs.
Weti	322	21330	209	13520
Chake-Chake	183	12020	185	9750
Mkoani	118	8170	176	8370
Total	623	41520	570	31640

TABLE VIII.

Return of Free Passes issued to Clove-pickers going to Pemba by
Government Steamers.

Year	Town	Mkokotoni	Total
1907	...	...	3694
1908	...	...	3393
1909	...	...	5495
1910	...	...	806
1911	4164	3788	7952
1912	177	63	240
1913	7083	4237	11320
1914	720	73	793
1915	5061	3716	8777
1916	548	564	1112

SECTION III.

Copra and Palm Kernel.—The figures shew a decrease being lower than any figure for the past 12 years.

The decrease in Pemba has been gradual for a number of years and is a sign of the little interest taken by the plantation-owners in that island in their properties.

The general decrease however is due to the shipping difficulties in the earlier part of the year and also to the increase in the export of coconut oil expressed locally.

When in England I went into the question of the possibility of extending our oil pressing industry here: and I interviewed various manufacturers of machinery.

The difficulty however lies in a local market (Indian and African) being found for the cake: and a way to the solution of that difficulty is not yet clear.

TABLE IX.

Exports of copra and palm-kernel (produced in the Protectorate) for past 12 years, and average price per frasila of 35 lbs.

Year	lbs.	Average price per frasila of 35 lbs.
		Rs. cts.
1905	17003727	2 75
1906	17279081	3 24
1907	13283420	3 76
1908	18419409	2 70
1909	13449082	3 26
1910	16899201	4 14
1911	18167835	4 00
1912	16672812	4 19
1913	16604611	4 85
1914	18983047	3 87
1915	19231521	3 73
1916	12258341	4 72

TABLE X.

Export of Coconut and Sim-Sim oil from 1904 to 1916 inclusive.

Year	Value Rs.
1904	49492
1905	61543
1906	46860
1907	67423
1908	10280
1909	32662
1910	30902
1911	54673
1912	49159
1913	35918
1914	23551
1915	115690
1916	133384*

NOTE:—Europe	...	Rs.	1800
Africa	...	„	131584
			<hr/> 133384 <hr/>

Section III.

District Yields in Pemba.—There is nothing of especial remark in these figures.

Owing to difficulties of freightage rubber has not been collected since the war.

TABLE XI.

District Seasonal Yields in Pemba from 1907-08 to 1915-16.

	Cloves			Copra			Oil-palm		
	Clove season: 1st July to 30th June			1st January to 31st December			1st January to 31st December		
	Weti fras.	Ch-Chake fras.	Mkoani fras.	Weti fras.	Ch-Chake fras.	Mkoani fras.	Weti fras.	Ch-Chake fras.	Mkoani fras.
1907/08	204739	No record	47333	76627	29668	20248	No record	22	193
1908/09	185915	„ „	81284	67445	51199	39425	1343	254	597
1909/10	118277	„ „	124589	60552	45575	31834	744	188	110
1910/11	42450	31116	46765	81545	35160	23338	2362	124	1154
1911/12	229722	128908	220476	79728	38720	38216	778	65	589
1912/13	18873	29173	52543	76644	38762	94373	2505	30	642
1913/14	169791	190600	301706	105155	48505	30195	893	32	352
1914/15	194978	55629	84166	86666	33892	35487	479	...	146
1915/16	223444	230964	212212	74261	30674	27261	156	6	44

TABLE XII.

Exports from Pemba Shipping Places, 1916.

Name	Port	District	Cloves		Copra		Rubber	
			Fras-las	District Total	Fras-las	District Total	Fras-las	District Total
Weti	Weti		117387		31837		..	...
Mtambwe	"		26709		5046		..	..
Junguni	"		12168		7157		...	..
Mtangatwani	"		7305		9680		...	...
Msuka	"		5950	169519	20560	74280	..	..
Chake-Chake	Chake-Chake		84807		27394		...	..
Kiswani	"		28707	113514	3310	30704	..	..
Jambagombe	Mkoani		62931		5704		..	...
Mkoani	"		14788		8063		..	..
Fufuni	"		22144		5153		..	..
Kengeja	"		42279	142142	8342	27262	...	..

NOTE:—Kiswani is in Chake-Chake district but its exports and imports pass through the Mkoani Port Office on account of the Chake-Chake creek.

SECTION V.

Sundry Crops.—It is noteworthy that the export of chillies shows an increase: due to the increased price obtainable.

The only obstacle to a very large increase in the cultivation of this crop is the fact this that Wahadimu, in whose districts it is chiefly grown, can now obtain sufficient money to live upon without the necessity of growing a crop which is not a pleasant one to harvest.

The present high price is of course abnormal and is not likely to continue indefinitely.

Native food crops are being cultivated on a much larger scale than heretofore partly an account of the shortage of imported food-stuffs and partly on account of the greater export to the mainland where there is a great scarcity of such crops.

About 16,000 tons of imported rice are consumed in the Protectorate per annum.

TABLE XIII.

Export of Chillies and Gum-copal for the past 13 years.

Year	Chillies		Gum-copal	
	Lbs.	Rs.	Lbs.	Rs.
1904	477453	124579	277826	190587
1905	564305	135216	227704	187012
1906	244405	30973	256435	215850
1907	86708	10150	223305	189849
1908	38850	5349	262184	247200
1909	95270	21047	263204	224444
1910	155788	31721	216671	177029
1911	93360	18608	169261	152643
1912	104720	20792	215632	165299
1913	76557	15720	164139	125849
1914	101183	24735	98035	84080
1915	78730	36407	130378	49210
1916	125887	66086	52784	35766

TABLE XIV.

Imports of Gum-copal into Zanzibar during the past 13 years.

Year	British East Africa lbs.	Portuguese East Africa lbs.	German Coast lbs.	Mafia lbs.	Total	
					lbs.	Rs.
1904	37490	29112	181247	...	247849	97410
1905	11364	55123	253805	...	320292	125948
1906	77080	44909	209701	...	331690	137033
1907	49120	60898	208349	...	318367	157590
1908	12188	61933	254588	...	328709	137761
1909	27196	85388	236395	...	348979	151268
1910	26072	69338	201931	...	297341	132518
1911	8354	49262	174020	...	231636	104220
1912	22238	77420	150322	...	249980	108301
1913	42468	67197	116783	...	226448	87881
1914	10234	40967	72835	...	124036	54235
1915	21285	68020	...	245	89550	41204
1916	2441	56672	13530	245	72888	30207

TABLE XV.

Statement of Imports (not re-exported) of Agricultural Produce and Stock for the past 13 years.

Article.	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916
Rice	1458618	1700374	1733193	2459321	4319449	3440142	2845509	3403959	1072084	3764600	2049415	2023066	2718003
Maize	10364	27032	26850	38566	42091	34784	21260	25684	33010	32735	26457	32149	37765
Sugar	278498	270750	284482	425774	161636	569453	515962	549276	622302	632209	143563	496676	22067
Timber	26984	102336	127684	96480	124750	111255	53462	113824	123462	100000	10210	200	3000
Cattle	148971	145568	146130	155429	175809	191067	159655	199257	224387	177016	100695	139575	184250
Sheep and Goats	144027	131844	104663	122562	168128	149333	146022	163162	188094	122008	102280	129938	107725
Horses	12395	7175	..	5135	6345	600	200	3117	2000	500	1800	..	700
Donkeys	21928	7431	7932	17224	14245	9605	8022	11544	11002	15116	..	..	825
Camels	..	..	..	..	..	..	..	..	..	..	..	..	..
Mules	..	..	..	..	..	..	..	..	..	..	..	..	..
Tobacco	75560	102180	97137	152508	127927	89576	136857	112802	160161	207205	100829	236234	181767

SECTION VI.

Government Plantations.—The returns from the Government Plantations have considerably exceeded the estimated revenue and although not quite so good as the previous year, must be considered satisfactory. This is due to the good clove crop and to the price having slightly improved on that of the year previous. The rubber tapping industry in Pemba which has been gradually declining for some years, has finally disappeared.

Table No. 18 gives the expenditure and revenue from the principal shambas. The shamba showing the best result for the year is Kizimbani Kibwa, but Marseilles comes fairly close, and if we take into account the large numbers of young trees on the latter group of shambas, the cleaning of which absorbs a very large portion of the gross profits, Marseilles would, I think be the best of all. A shamba like Chukwani with only 6,000 bearing coconut trees, a large proportion of which are old, and nearly 18,000 young unbearing trees, cannot be expected to be run at a profit for some years.

Table No. 19 shows the clove-yields on the principal Government Plantations.

It is of interest to note that in the important feature of the number of pounds of cloves per tree, the shamba of Dunga is considerably ahead of the others, taken over a number of years although last year Marseilles was a little better.

Table No. 20 gives the distribution of the cultivation grant according to the different classes of work.

Table No. 21 shows the clove crops from the Government Plantations for a number of years, and the crop of 1916 bears a somewhat higher proportion to the total crop of the two Islands than has been the case for several seasons past.

Table No. 21A. is most instructive. In the first column is given the actual amount of green cloves picked on the various plantations in pounds weight, the second column the amount spent in picking these cloves. In the third column the number of dry cloves produced and sold and in the fourth column the price realized for the crop.

Cloves during the process of drying lose more than half their weight under ideal conditions, but conditions prevailing on plantations during the harvest are by no means ideal, so that the proportion between green cloves picked and dry cloves sold is always a variable amount. This percentage is shown in column five. The chief causes leading to a high percentage of loss lie in cloves which are picked before they are ripe, and after the flower buds have opened. A considerable amount of loss is also caused by heavy rain which washes them off the drying floors and mats, and continued bad weather which prolongs drying and causes a heating.

Owing to the steady rise in the price of copra and the prospect of still further advances, the rents received for our leased coconut plantations show a considerable improvement. There was not the same competition for freights as in the previous year and this also had a beneficial effect. The actual rents obtained are shown in table 22. The present rents are really the best ever obtained as those of 1911 which are higher and had subsequently to be reduced whereas these have all held good.

Table No. 24 gives the number of trees destroyed by fires on Government Plantations.

The amount of damage done during the year, was exceptionally heavy. These fires are usually caused by the carelessness of native cultivators either on our own or on neighbours' plantations. They decide upon a piece of land for their crops then frequently find it much easier to burn off the existing grass and other growth, than to hoe it up. It is extremely difficult to find the people who start the fires and when found still more difficult to inflict any adequate punishment.

No adequate legislation exists for controlling these fires.

TABLE XVI.

Revenue and Expenditure, 1916.

REVENUE.

Sub-head		Estimate	Actual
		Rs.	Rs.
Cloves	...	1,09,000	1,66,391
Coconuts	...	60,000	74,770
Rubber	...	1,000	...
Miscellaneous	...	3,500	2,446
Rent of Leased Plantations	...	...	16,368
Lands	...	...	2,192
Quarries	...	...	33
Land sales	...	...	2,252
Total		1,73,500	2,64,452

TABLE XVI.

EXPENDITURE.

Sub-head		Estimate	Actual
		Rs.	Rs
Personal Emoluments	...	79,310	65,197
Cultivation (Bearing Trees)	...	60,000	* 64,497
Cultivation (Young Trees)	...	6,000	5,988
Clove-harvest	...	29,000	* 63,146
Coconut Gathering	...	800	382
Rubber Collection	...	500	...
Travelling Expenses	...	2,700	* 3,130
Contingencies	...	3,750	3,184
Maintenance of Plantation houses	...	2,250	* 3,548
Nursery	...	2,000	1,882
Sundry	...	15,300	12,548
Total		2,01,610	2,23,502

* Excess met by Special Warrants.

TABLE XVII.
Receipts and Expenditure of individual Shambas, 1916.

Shamba	Cloves.			Stock.		Coconuts.				Expenditure.				Receipts.				REMARKS					
	Bearing		Young	No.	Acre.	No.	Acre.	Bearing	Young	No.	Acre.	Super- vision and Sundry labour		Total	Cloves	Cocoanuts	Sundry		Total				
	No.	Acre.										Rs.	c.							Rs.	c.	Rs.	c.
Basra	10765	..	4123	..	1787	..	1373	..	7160	73	611	85	7772	58	10176	40	2200	00	22	00	12398	40	
Bet-el-Mal Kubwa	246	..	..	..	6213	..	1177	..	..	..	..	..	..	..	..	..	..	2075	00	2675	00	Leased.
Bet-el-Mal Ndogo	156	..	59	..	298	..	532	..	..	..	..	..	..	..	..	..	..	340	00	340	00	Leased.
Bet-el-Ras	332	..	..	..	4585	..	5747	..	2371	83	489	06	2860	89	..	..	6645	00	190	00	6835	00
Bomani	1119	..	2178	..	23	44	23	44	845	00	845	00
Bumbwi Mbuyuni	1500	..	1860	..	234	..	859	..	2283	15	176	44	2159	59	1392	10	660	00	38	00	2090	00	
Bumbwi Sudi	676	..	3153	..	794	..	1716	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chuni	..	..	..	..	1479	..	4405	..	396	00	5	14	401	14	..	..	710	00	92	62	802	62
Chwaka	314	..	213	11	10	41	10	..	285	65	15	00	300	65
Chukwani	..	..	..	..	6080	..	17673	..	4690	24	584	63	5974	87	..	..	4400	00	505	98	1905	98
Darajani and Market	1860	37	..	..	1094	..	1836	..	51	61	296	67	348	28	..	..	12	69	946	00	958	69
Dunga	3090	1791	..	..	3746	..	6181	..	7537	61	1147	85	8685	46	7465	76	4300	00	78	75	11844	51
Gulioni	..	..	..	..	7	..	4	..	..	..	3	34	3	34	..	..	19	00	..	..	19	00
Kama	17	..	..	..	926	..	2173	..	..	..	1	83	1	83	..	..	..	..	438	63	438	63
Kibonde Mzungu	1746	..	..	..	3121	..	1514	..	3262	69	190	03	3452	72	4179	12	2050	00	34	00	6263	42
Kichwele	203	..	..	..	119	..	34	..	96	00	17	50	113	50	..	..	40	00	..	..	40	00
Kidichi	2572	..	1020	..	5198	..	5957	1	7803	54	992	50	8796	01	8531	22	6300	00	368	00	15689	22	
Kibweni	10	..	..	..	872	..	1802	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kitope	6012	..	7603	..	1048	..	1348	..	7056	00	447	39	7503	39	4555	02	1635	00	80	00	6170	02	
Pangani and Ngonjoni	..	..	..	..	995	..	60	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kilimani and Mkuajuni	..	..	..	..	153	..	525	..	89	68	0	48	90	16	..	..	254	79	13	62	268	41
Kinaoni	2233	..	1969	..	2711	..	3383	..	..	..	10	72	10	72	..	..	..	..	1650	00	1650	00
Kinuni Mdo	880	..	1000	..	858	..	2450	..	129	42	4	88	134	30	..	..	919	00	30	00	919	00
Kinuni Moshi	1313	..	930	..	272	..	1330	..	3542	05	145	07	3687	12	2093	41	210	00	24	00	2327	41	
Kipange	3722	..	2968	..	399	..	1913	..	3287	87	308	01	3595	88	5855	71	550	00	72	00	6477	74	
Kisaoni	4	..	..	..	2700	..	596	..	270	62	0	31	270	96	..	..	3000	00	113	50	3113	50

TABLE XVII.

Receipts and Expenditure of individual Shambas, 1916.—(continued).

Shamba	Cloves.			Stock.			Coconuts.			Expenditure.			Receipts.			REMARKS							
	Bearing		Young	Bearing		Young	Super- vision and labour		Total	Cloves	Coconuts	Sundry	Total	Rs. c.	Rs. c.								
	No.	Acres.	No.	Acres.	No.	Acres.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.											
Kizimbani Kubwa	5595	..	3746	..	1709	..	3785	..	7933	81	382	01	8315	02	10005	65	2960	00	94	00	19059	65	Treated as one plantation.
Kizimbani Ndogo	110	..	122	..	736	..	1189	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bumbwi Kizimbani	2214	..	1479	..	473	..	1913	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Koani	3072	..	389	..	2753	..	2124	..	3041	76	1862	34	4904	10	2584	56	2360	00	30	60	4975	16	..
Marselles	7874	..	2575	..	8445	..	11117	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Manyami	3148	..	2262	..	529	..	11197	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
El-Hathra	3052	..	4345	..	725	..	4128	..	23740	39	3096	60	26336	99	27889	09	7150	00	1157	00	36136	09	Treated as one plantation.
Kitumba	845	..	431	..	2898	..	1116	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mango Kubwa	6313	..	3678	..	1171	..	6532	..	11460	70	872	83	12333	53	17735	65	2010	00	10	00	19755	65	..
Mango Ndogo	3986	..	2689	..	398	..	1461	..	5350	57	486	47	5837	04	12950	11	825	60	11	00	13789	14	..
Mbaleni Kubwa	6474	..	3556	..	822	..	2693	..	2066	91	142	44	2209	35	3326	38	615	00	18	00	3959	38	..
Mbaleni Ndogo	4289	..	3189	..	888	..	1630	..	1828	89	822	01	5650	92	2174	10	900	00	166	00	3240	10	..
Mahonda	6020	..	1848	..	1325	..	4610	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Marhubi	222	..	..	..	1972	..	3481	..	3541	53	418	55	3960	05	141	97	2620	60	135	03	3199	67	Treated as one plantation.
Marhubi Garden	..	..	..	..	204	..	1165	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mkanyageni	6031	..	3509	..	642	..	1921	..	5446	56	290	80	5737	36	8916	59	110	00	6	00	9332	59	..
Mpaka Dutch	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mpapa	45	..	211	..	3167	..	6256	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mangapwani	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mkokotoni	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mroni	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Miwani	106	..	..	..	605	..	886	..	366	23	71	04	437	68	..	..	..	..	..	..	..	..	..
Mianziti	30	..	2100	..	5020	..	6967	..	4996	24	217	43	213	67	12	47	5400	00	192	93	5605	40	..
Mwembeladu	..	..	..	..	1334	..	7168	..	577	56	282	13	859	69	..	..	..	..	..	..	..	..	..
Mkunguni	..	..	..	..	110	..	717	..	60	00	0	72	60	72	..	..	..	..	..	..	..	..	..
Migombani	..	..	..	..	1005	..	3419	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	1473	..	5195	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	90	..	..	..	350	..	465	..	1009	94	44	14	1054	08	69	08	415	00	195	68	679	76	Including Migombani Gardens & Wireless Station.
Mgongovaganja	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mwera Bridge and Kidogobassi	2223	..	1324	..	429	..	1695	..	1710	95	237	55	1948	30	1355	67	300	00	10	06	1665	67	..
Mazini	4	..	..	..	83	..	27	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	61	..	..	..	579	..	4202	..	219	04	86	42	305	46	47	49	1600	00	156	24	1803	73	..

Treated as one plantation.
Kunumba leased. Rent Rs. 900 p. a. lines 1000

Treated as one plantation.

Rent Rs. 100.
Rent Rs. 600.
Including Migombani Gardens & Wire Station.

TABLE XVII.

Receipts and Expenditure of individual Shambas, 1916.—(*continued*).

Shamba	Cloves.		Coconuts.		Expenditure.			Receipts.			REMARKS					
	Bearing		Young		Super- vision and Sundry labour			Coconuts Sundry Total.								
	No. Acre.	No. Acre.	No. Acre.	No. Acre.	Rs. c.	Rs. c.	Rs. c.	Total	Cloves	Rs. c.		Rs. c.	Rs. c.			
Nyanjalle	..	164	..	..	1309	..	391	..	..	1 21	1 21	..	..	..	678 50	678 50 Leased. Rent Rs. 675.
Nyamgombe	..	10	..	..	724	..	260	..	26 33	1 00	27 33	..	..	1010 00	93 00	1103 00
Pigaduti	15 00	..	15 00
Sebeleni	225	..	5262	..	125 19	10 69	105 88	..	..	175 00	143 00	318 00 Leased. Rent Rs. 30.
Seleni	..	10756	..	6034	..	4137	..	13078	..	13670 92	1835 52	15506 41	11677 05	5821 00	212 81	17710 86
Saatani	600 96	600 96 Ground rent receipts only.
Walezo and Chumbuni	114	..	15	..	645	..	579	..	96 00	..	..	96 00	..	..	8 00	68 00
Ziwani	..	276	..	350	..	1021	..	14	..	171 87	6 00	177 87	..	..	300 00	16 00 316 00

TABLE XVIII.

Table showing clove-yields from principal plantations from Seasons 1907/08 to 1916/17.

		1907/08				
Shamba.		No. of bearing trees	Cloves fras.	Stems fras.	lbs. per tree	% of stems to cloves
Marseilles	..	13574	934	142	2.77	15.20
Basra	..	10765	886	155	3.38	17.49
Dunga	..	3090	467	75	6.10	16.06
Mahonda	..	6020	84	15	.57	17.86
Mkanyageni	..	6060	708	77	4.53	10.87
Mbaleni Kubwa	..	6474	147	30	.96	20.40
Mbaleni Ndogo	..	4443	302	38	2.67	12.58
Kitope	..	6899	230	38	1.85	16.52
Kipange	..	3722	332	17	3.28	5.12
Mlango Kubwa and Ndogo	..	10249	1061	197	4.29	18.56
Fufuni	..	10593	1300	210	4.99	16.15
		1908/09				
Shamba.		No. of bearing trees	Cloves fras.	Stems fras.	lbs. per tree	% of stems to cloves
Marseilles	..	13574	3146	588	3.62	18.69
Basra	..	10765	973	162	3.69	16.64
Dunga	..	3090	545	77	7.04	14.12
Mahonda	..	6020	454	84	3.12	18.50
Mkanyageni	..	6060	661	54	4.12	8.16
Mbaleni Kubwa	..	6474	455	67	2.87	14.40
Mbaleni Ndogo	..	4443	631	107	5.81	16.95
Kitope	..	6899	1275	217	7.56	17.01
Kipange	..	3722	568	104	6.31	18.30
Mlango Kubwa and Ndogo	..	10249	859	92	3.24	10.71
Fufuni	..	10593	2247	438	8.87	19.49
		1909/10				
Shamba.		No. of bearing trees	Cloves fras.	Stems fras.	lbs. per tree	% of stems to cloves
Marseilles	..	13574	563	77	1.65	13.67
Basra	..	10765	573	63	2.06	10.99
Dunga	..	3090	204	40	2.76	19.60
Mahonda	..	6020	800	110	5.29	13.75
Mkanyageni	..	6060	570	90	3.81	15.78
Mbaleni Kubwa	..	6474	444	60	2.72	13.51
Mbaleni Ndogo	..	4443	255	33	2.26	12.94
Kitope	..	6899	198	32	1.16	16.16
Kipange	..	3722	99	18	1.10	18.18
Mlango Kubwa and Ndogo	..	10249	667	87	2.57	13.04
Fufuni	..	10593	263	55	3.03	20.91
		1910/11				
Shamba.		No. of bearing trees	Cloves fras.	Stems fras.	lbs. per tree	% of stems to cloves
Marseilles	..	13574	202	33	.60	16.33
Basra	..	10765	71	15	.27	21.12
Dunga	..	3090	23	5	.31	21.73
Mahonda	..	6020	145	22	.97	15.17
Mkanyageni	..	6060	258	23	1.62	8.91
Mbaleni Kubwa	..	6474	127	20	.79	15.74
Mbaleni Ndogo	..	4443	99	17	.91	17.17
Kitope	..	6899	206	34	1.21	16.15
Kipange	..	3722	39	7	.43	17.94
Mlango Kubwa and Ndogo	..	10249	303	32	1.14	10.55
Fufuni	..	10593	375	55	1.42	14.66

TABLE XVIII.

Table showing clove-yields from principal plantations from Seasons
1907/08 to 1916/17.—*contd.*

Shamba.		No. of bearing trees	1911/12			% of stems to cloves
			Cloves fras.	Stems fras.	lbs. per tree	
Marseilles	..	13574	3017	440	8.91	14.58
Basra	..	10765	1857	224	6.26	12.06
Dunga	..	3090	1055	145	13.59	13.74
Mahonda	..	6020	850	112	5.59	13.17
Mkanyageni	..	6060	891	94	5.68	10.54
Mbaleni Kubwa	..	6474	1202	167	7.40	13.39
Mbaleni Ndogo	..	4443	707	103	7.08	12.92
Kitope	..	6899	1026	154	5.98	15.00
Kipange	..	3722	570	95	6.25	16.66
Mlango Kubwa and Ndogo	..	10249	1116	212	4.63	18.99
Fufuni	..	10593	1932	474	8.14	23.79
Shamba.		No. of bearing trees	1912/13			% of stems to cloves
			Cloves fras.	Stems fras.	lbs. per tree	
Marseilles	..	13574	103	18	.31	17.47
Basra	..	10765	51	7	.18	13.72
Dunga	..	3090	44	9	.60	20.45
Mahonda	..	6020	31	6	.21	19.35
Mkanyageni	..	6060	77	14	.52	18.18
Mbaleni Kubwa	..	6474	38	5	.23	13.16
Mbaleni Ndogo	..	4443	14	2	.12	14.22
Kitope	..	6899	16	3	.09	20.00
Kipange	..	3722	17	3	.18	17.65
Mlango Kubwa and Ndogo	..	10249	76	8	.28	10.53
Fufuni	..	10593	115	20	.44	17.38
Shamba.		No. of bearing trees	1913/14			% of stems to cloves
			Cloves fras.	Stems fras.	lbs. per tree	
Marseilles	..	13574	2822	537	8.66	19.02
Basra	..	10765	1046	253	4.22	24.18
Dunga	..	3090	968	168	12.86	17.35
Mahonda	..	6020	454	108	3.26	23.78
Mkanyageni	..	6060	922	211	6.54	22.88
Mbaleni Kubwa	..	6474	982	170	6.03	17.31
Mbaleni Ndogo	..	4443	243	53	2.33	21.81
Kitope	..	6899	459	91	2.79	19.82
Kipange	..	3722	202	31	2.19	15.34
Mlango Kubwa and Ndogo	..	10249	743	145	3.03	19.15
Fufuni	..	10593	3057	627	12.17	20.51
Shamba.		No. of bearing trees	1914/15			% of stems to cloves
			Cloves fras.	Stems fras.	lbs. per tree	
Marseilles	..	13574	1998	386	6.14	19.31
Basra	..	10765	2175	494	8.67	22.71
Dunga	..	3090	177	40	2.45	22.59
Mahonda	..	6020	992	145	6.61	14.62
Mkanyageni	..	6060	1041	196	7.14	18.82
Mbaleni Kubwa	..	6474	182	20	1.09	11.00
Mbaleni Ndogo	..	4443	156	30	1.46	19.23
Kitope	..	6899	755	114	4.54	18.54
Kipange	..	3722	486	118	5.68	24.23
Mlango Kubwa and Ndogo	..	10249	1550	257	6.16	16.47
Fufuni	..	10593	7	1½	0.03	21.43

TABLE XVIII.

Table showing above-yields from principal plantations from Seasons
1907/08 to 1916/17.—*contd.*

		1915/16				
Shamba.	No. of bearing trees	Cloves fras.	Stems fras.	lbs. per tree	% of stems to cloves	
Marseilles	13574	771	118	4.87	20.24	
Basra	10765	786	133	3.16	24.74	
Dunga	6040	1089	203	17.58	30.53	
Mahonda	6020	200	35	1.42	22.50	
Mkanyageni	6060	35	22	6.80	25.88	
Mbaleni Kubwa	6474	1000	67	8.79	23.27	
Mbaleni Ndogo	4443	45	50	3.19	20.89	
Kitope	880	245	61	2.77	22.64	
Kipange	722	81	79	5.99	16.42	
Mlango Kubwa and Ndogo	6249	316	12	3.68	17.63	
Fufuni	6942	751	10	10.29	13.26	
		1916/17				
Shamba.	No. of bearing trees	Cloves fras.	Stems fras.	lbs. per tree	% of stems to cloves	
Marseilles	13574	9678	1150	15.03	24.58	
Basra	10765	1678	141	6.89	26.28	
Dunga	6090	3000	243	14.08	24.30	
Mahonda	6020	873	179	6.11	20.50	
Makanyageni	6060	656	135	4.55	20.77	
Mbaleni Kubwa	6474	209	1	1.42	25.84	
Mbaleni Ndogo	4443	99	15	0.90	15.15	
Kitope	880	1208	212	7.20	17.55	
Kipange	722	194	85	5.44	17.21	
Mlango Kubwa and Ndogo	10249	1986	361	8.01	18.18	
Fufuni	10360	1542	11	5.09	..	

TABLE XX.

Clove Crops from Government Plantations.

Year	Z'bar.	Pemba	Total	Season	Total crop	Percent- age of clove to whole	Year	Z'bar.	Pemba	Total	Season	Total crop	Percent- age of Clove to whole
1899	..	..	12433	..	..	..	1908	57	1581	1638	1908-09	18743	4.61
1900	..	..	2632	..	..	..	1909	15323	4745	20058	1909-10	11073	2.82
1901	..	..	2993	..	..	..	1910	3468	1182	4650	1910-11	2155	1.12
1902	..	..	..	1902-03	12942	3.02	1911	4775	3857	8632	1911-12	21461	2.80
1903	10596	2106	12702	1903-04	1872	8.41	1912	10983	1268	12251	1912-13	1679	1.24
1904	756	5039	5795	1904-05	7986	1.05	1913	10429	4473	14866	1913-14	15018	2.06
1905	3288	1335	4623	1905-06	12869	4.41	1914	5444	985	6429	1914-15	16884	3.21
1906	12002	3403	15406	1906-07	4612	1.77	1915	14738	4980	19719	1915-16	15492	1.94
1907	7680	4528	12308	1907-08	12071	1.59	1916	13789	1379	15168	1916-17	20957	4.09

TABLE XXI.

Clove yields Government Plantations showing Green and Dry Cloves and percentage of loss between the two, season 1916/17.

Shamba	Green Cloves			Dry Cloves		% loss between Green and Dry	Dry Stems lbs.	% of dry stems to dry cloves
	lbs. picked	Amount spent		lbs. sold	Amount			
Marseilles	..	539784	9240 31	163719	53202 13	69	40281	24
Basra	..	204309	3665 69	58744	19325 42	71	15446	26
Mlango Kubwa	..	226493	3743 35	69522	23001 04	69	12683	18
Kizimbani	..	94581	1553 78	31075	9898 93	67	5231	16
Kipange	..	53271	872 53	17306	5783 53	67	2983	17
Kinuni Moshi	..	20493	337 45	6316	1919 46	69	1169	18
Bumaji Sudi	..	21807	363 09	6724	2171 60	69	1463	21
Dunga	..	123574	1944 64	35010	10850 56	71	8528	24
Seleim	..	285978	4806 48	93174	29055 20	67	19734	21
Mbaleni Ndogo	..	10295	165 77	3448	1041 71	66	524	15
Mbaleni Kubwa	..	29089	495 52	7311	2214 74	74	1873	25
Mkanyageni	..	69816	1225 33	22734	6962 33	67	4729	20
Mahonda	..	88908	1677 07	30541	9637 43	65	6252	20
Kitope	..	130146	2350 79	42298	12802 17	67	7430	17
Kidichi	..	74898	1218 26	26149	8414 64	65	4599	17
Mgongowagamia	..	21587	379 81	6516	2148 46	69	1630	25
Kibonde Mzungu	..	43013	732 87	13548	4601 02	68	3230	23
Migombani Group	..	1141	17 83	326	114 54	71	84	25
Mtoni Group	..	2539	39 67	808	268 04	68	143	17
Koani	..	71248	1316 62	21737	6746 46	69	4708	21
Total	..	2112370	36146 86	657006	210150 41	68	142720	21

TABLE XXII.

Table showing the Rents for licencing coconuts: from 1910 to 1917 inclusive.

Shamba.	No. of coconut trees; stock of 1910.	1910		1911		1912		1913		1914		1915		1916		1917		Average gross licencing 1917 to 1919 inclusive.	Average No. of nuts picked p. a. in 3 years previous to 1917 inclusive.
		Rs.	In lease	Rs.	In lease	Rs.	In lease	Rs.	In lease	Rs.	In lease	Rs.	In lease	Rs.	In lease	Rs.	In lease		
Basra	...	1787				2,000		2,600		2,950		2,100		2,200		1,430		34200	
Bet-el-ras	...	4585						6,800		7,800		6,510		6,500		7,280		86300	
Bouani	...	1149	In lease	In lease		In lease		In lease				1,070		825		833		leased in 1909	
Bunbwi Kizimbani	...	437	290	310		350		325		580		350		410		710			
Bumbwi Sudi	...	1080	600	660		700		850		875		600		660		1,040		217	...
Chuini (Kib. Mzungu)	...	1479		In lease				1,110		1,220		1,160		710		1,120		379	...
Chukwani	...	6080	...	3,260		4,050		4,000		4,125		1,500		4,400		6,000		433	...
Donge	...	299	In lease	In lease		300		370		Sold in 1914		...		...		...		1,380	75300
Darajani		2,020		...	...
Dunga	...	3746	†	1,800		1,600		3,000		4,525		4,220		4,300		5,360		846	27876
El-Hathra	...	725	616	675		890		1,050		1,210		1,070		800		1,180		460	...
Gulioni	...	7	Private property			†		10		12		17		19		21		Private property	...
Kibonde Mzungu	...	3121	leased	2,200		2,400		2,710		3,780		2,600		2,050		2,760		leased	...
Kibweni	...	722	...	...		...		...		...		...		1,000		1,290		...	...
Kichwele	...	119	†	...		†		...		125		50		40		125		55	...
Kidichi	...	5198	leased	5,850		6,400		6,450		8,950		6,000		5,800		7,280		2,933	...
Kilmani	...	120	In lease					335		400		330		250		300		leased	...
Kinuni Mdo	...	858	leased	800		900		1,290		1,635		1,225		850		1,140		228	...
Kinuni Mushi	...	272	80	100		116		140		270		255		210		250		62	...
Kizimbani Kubwa	...	1709	1,450	1,600		1,850		2,020		3,360		2,375		1,750		2,255		1,041	...
Kizimbani Ndogo	...	726	leased	710		1,221		1,360		1,600		1,115		800		1,040		leased	...
Kipange	...	399	500	500		600		670		1,000		520		550		720		332	...
Kitope	...	1048	leased	1,260		1,260		1,070		1,690		1,020		1,010		1,125		987	...
Kisaoni	...	2700	In lease			In lease		In lease		In lease		3,805		3,000		4,260		leased	...
Koani	...	2753	...	...		...		...		...		...		2,360		3,600		...	...
Mazizini	...	671	leased					1,455		2,115		2,025		1,600		2,160		926	...
Mahonda	...	1335	1,000	1,000		1,000		1,020		2,375		1,300		900		1,032		591	...
Manyami	...	529	410	440		560		565		800		620		600		740		264	...
Market	†	†		†		13		29		13		16		...		with Collectorate	...

TABLE XXII—(contd.)

Table showing the Rents for licencing coconuts: from 1910 to 1917 inclusive.

Shamba.	No. of coconut trees: stock of 1910	1910	1911	1912	1913	1914	1915	1916	1917	Average gross receipts previous to licencing: 1907 to 1909 inclusive	Average No. of nuts picked p. a. in 3 years previous to licencing
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.		
Marhubi Outside	...	1972	...	2,000	2,740	3,300	2,550	2,350	2,000	1,592	41,800
Marhubi Inside	...	125	...	230	375	490	310	270	330	with 11, 11,	...
Marseilles	...	3945	3,350	4,394	4,810	6,915	5,700	5,750	7,380	2,027	76,600
Mbaleni Kubwa	...	822	930	930	975	1,000	1,080	825	1,000	407	...
Mbaleni Ndogo	...	890	1,025	1,090	530	925	680	615	750	750	...
Mgonogwaganna	...	429	250	255	295	430	370	300	435	101	...
Migombani	...	350	leased	430	430	465	475	320	450	33	...
Migombani Gardens	...	5	...	12	14	14	6	5	5	In lease	...
Miwani	...	1334	In lease	1,940	1,850	2,675	1,850	1,400	1,900	966	...
Mianzini	...	110	180	210	260	385	310	180	265.25	144	...
Mkanyageni	...	642	650	650	650	1,125	810	410	625	438	...
Mlango Kubwa	...	1171	1,100	1,800	1,800	2,250	1,275	1,500	1,700	761	...
Mlango Ndogo	...	398	300	415	450	850	505	510	567	248	...
Mtoni	...	5020	3,700	4,700	4,710	7,775	6,010	5,400	6,880	3,707	110,250
Mwanakwerekwe	...	417	...	475	560	1,230	504	...	...	...	...
Nyungombe	...	724	In lease	600	730	1,790	1,370	1,010	1,250	In lease	...
Pangeni and Ngonjoni	...	763	550	560	670	750	550	525	525	was included in Kitope	...
Pigaduli	14	15	15	...	...
Sebleni	...	225	...	170	1,305	970	250	175	180	187	...
Salem	...	4355	4,980	5,600	5,650	7,425	6,376	5,800	7,280	3,486	...
Wlezo and Chumbani	...	645	...	224	203	225	115	60	150	158	...
Wireless Station	Included in Migombani	...	...	205	150	90	120	Included in Migombani	...
Zeeuwani	...	1021	...	...	...	...	...	300	425	...	...
Trees along the road between Dunga and Chwaka	4	...	...
Mangapwani	800	...	...
Mkokotoni	700	...	...
Chwaka	135	...	...
Mkunguni	575	...	...

† Nuts were picked by the Government.

TABLE XXIII.

Leased Plantations.

No	Name of plantation	Name of Lessee.	Date of lease.	Term.	Date of expiry.	Rent p.a. Rs.	Remarks.
1.	Bet-el-mali-kubwa	G. B. Ennis	1 6 06	25 years	31 5 31	2,700	Rent increased from Rs. 2,600 to Rs. 2,700 from 1st June.
2.	Bet-el-mali-ndogo	Hakam Kankasing	23 9 09	13 "	29 9 22	340	
3.	Chwaka Veroin	His Lordship the Bishop of Zanzibar	15 4 01	50 "	14 4 51	15	
4.	Darajani	Hamed b. Mohamed	17 7 06	10 "	16 7 16	900	Lease transferred to His Lordship the Bishop of Zanzibar from 1st April
5.	Kiuna	Sulim bin Khams	4 10 09	10 "	3 10 19	425	
6.	Kibweni (part of Kidichi I)	Seif bin Said	10 7 06	50 "	9 7 56	300	Rent increased from Rs. 250 to Rs. 300 from the 10th July
7.	Kitumba	Hilal bin Salim	22 10 09	13 "	21 10 22	900	
8.	Mwembelatu	Mfamee bin Kanga and Juma bin Hatibu	21 9 09	13 "	20 9 22	700	Rent increased from Rs. 2,000 to Rs. 2,250 from 21st September, 1915
9.	Mkunguni	Mohamed bin Miraj	21 9 09	13 "	20 9 22	600	
10.	Mpapa	Kasam Devji and Hamed bin Masud	22 9 09	13 "	21 9 22	2,250	
11.	Nyanjalle	Salim bin Khams	4 10 09	10 "	3 10 19	675	
12.	Sebeleni	Abdul Hoosein Pishori	15 4 10	10 "	14 4 20	30	
13.	Kinaoni	Kasam Devji	20 8 09	13 "	19 8 22	2,200	
14.	Mwera Bridge	Mwalim Suleman bin Mbaruk	1 1 16	1 "	31 12 16	70	
15.	Kidogobassi	Mwalim Suleman bin Mbaruk	1 1 16	1 "	31 12 16	60	
16.	Tundana (Pemba)	Abdullah Devji	18 4 10	8 "	17 4 18	5,125	
		Total				17,290	

TABLE XXIV..

Fires on Government Plantations: Table of trees destroyed and burnt.

Bearing coconut trees	...	156
Unbearing coconut trees	...	2648
Bearing clove trees	...	100
Unbearing clove trees	...	155
Mango trees	...	22
Rubber trees	...	1180

TABLE XXV.

Statement showing properties purchased and sold.

SALES		SALES	
ZANZIBAR		PEMBA	
SHAMBA	AMOUNT	SHAMBA	AMOUNT
	Rs.		Rs.
Miwaleni	2,710	Ugoe	3,000
Kidote	8,000	Mchangani Pujini	300
Kinuni (Welezo)	988	Ngezi Verani	175
Donge Proper	16,600	Gando Proper	1,100
Mwanda (Donge)	1,200	Gando Vikutani	850
Msalani ..	550	Ngezi Mtemani	330
Bondeni ..	300	Gando Kiungani	480
Mtuba ..	55	Konde	500
Mwanakwerekwe	8,150		
Kikangoni Mkubwa	1,000		
Miwani Ndogo	900		
Total	40,453	Total	6,735
		Grand Total Rs. 47,183	

PURCHASES

SHAMBA	AMOUNT
	Rs.
Mazizini	2,500
do	2,000
Dunga pieces	320
Tundaua	3,000
Chukwani	300
Mianzini	500
Koani	75,650
Total	84,270

SECTION VII.

METEOROLOGY.

All the meteorological statistics available in the two Islands are contained in Tables 12, 13, 14 and 15.

The figures for the Town station are supplied by Dr. Copland as in former years. Those from Banani station in Pemba are supplied by the Friends' Industrial Mission; the Weti station is in charge of this Department, and the observations from Kigomache are taken by the light-keeper and supplied through the Port Office. The observations at Mkokotoni and Chwaka are taken by the Officers-in-charge of the respective stations.

TABLE XXVI.

Meteorological Observations, Town Station, 1916.

Month	AIR TEMPERATURE							RAINFALL			
	Means of		Absolute Max. & Min.				Relative Humidity	Total	Max.	Date	No. of rainy days
	Max.	Min.	Max.	Date	Min.	Date					
January	.. 88.7	80.3	93.8	20th	72.1	21st	..	1.63	1.56	21st	5
February	.. 87.9	79.2	92.2	22nd	72.2	4th	..	3.50	1.29	4th	8
March	.. 88.1	79.8	92.5	26th	76.7	21st	..	2.29	0.86	21st	13
April	.. 85.1	76.9	89.0	8th	73.3	14th	..	33.35	10.80	14th	24
May	.. 84.1	75.5	87.1	8th	73.5	31st	..	4.35	1.91	2nd	8
June	.. 83.4	74.5	85.1	4th	72.4	12th	..	1.38	0.85	21st	3
July	.. 81.4	72.7	84.2	9th	69.7	16th	..	0.38	0.20	7th	5
August	.. 81.5	72.5	83.9	17th	71.4	9th	..	2.11	0.98	30th	8
September	.. 84.1	73.8	87.3	20th	72.4	10th	..	2.81	1.52	21st	8
October	.. 83.5	74.7	88.1	23rd	73.4	3rd	..	5.83	1.60	29th	14
November	.. 86.1	77.8	88.0	25th	75.5	21st	..	2.94	0.92	30th	13
December	.. 87.3	79.1	89.8	26th	74.8	14th	..	2.92	1.30	4th	9
Total ..	85.1	76.4	93.8	20.1-16	69.7	16.7-16	..	63.49	10.80	14.4-16	118

TABLE XXVII.

Meteorological Observations, Banani, Pemba, 1916.

Month	AIR TEMPERATURE.				RAIN-FALL.			
	Means of		Absolute Max.	Absolute Min.	Total	Max.	Date	No. of rainy days
	Max.	Min.						
January	... 85.1	72.2	88.0	70.0	1.50	1.15	30th	7
February	... 84.3	72.5	88.5	70.0	3.40	1.58	12th	11
March	... 83.9	72.0	87.5	70.0	6.75	1.92	14th	14
April	... 85.8	77.2	89.0	73.0	18.59	3.10	14th	24
May	... 84.7	76.9	88.0	74.0	13.02	4.21	2nd	17
June	... 83.7	75.9	86.0	74.0	3.51	0.97	16th	16
July	... 81.6	73.9	85.0	71.0	3.50	0.54	28th	22
August	... 82.2	73.3	84.0	71.0	0.72	0.17	6th	11
September	... 83.5	73.8	87.0	71.0	3.25	1.23	21st	12
October	... 84.9	75.6	87.0	74.5	1.43	0.70	28th	9
November	... 86.1	76.9	88.0	75.0	6.80	2.27	30th	15
December	... 87.5	78.5	90.0	75.0	5.09	0.97	8th	18
Total ...	84.4	74.9	90.0	70.0	67.56	4.21	2.5-16	176

TABLE XXVIII.

Rain-fall Returns at District Stations, 1916.

Month	WETI				KIGOMACHE				MKOKOTONI				CHWAKA			
	Total	Max.	Date	No. of rainy days	Total	Max.	Date	No. of rainy days	Total	Max.	Date	No. of rainy days	Total	Max.	Date	No. of rainy days
January	0.30	0.30	26th	1	0.34	0.20	31st	2	1.18	0.90	31st	5	0.24	0.24	31st	1
February	2.24	1.80	23rd	4	1.06	0.76	20th	3	5.61	1.50	11th	9	2.19	1.31	20th	5
March	6.79	1.52	10th	14	3.21	1.10	23rd	8	3.69	0.90	22nd	8	9.13	1.71	15th	11
April	15.37	4.27	13th	18	17.13	3.56	15th	21	14.27	1.85	24th	22	21.55	4.53	14th	24
May	12.25	6.89	2nd	10	11.85	4.14	2nd	9	4.11	0.80	6th	11	6.91	1.56	2nd	8
June	3.19	1.04	16th	8	4.00	0.86	28th	11	3.32	1.45	29th	7	0.98	0.68	28th	3
July	1.99	0.38	16th	15	2.51	0.47	6th	10	1.47	0.70	30th	5	2.26	0.74	4th	10
August	1.19	0.51	31st	7	1.11	0.76	29th	3	1.41	0.71	7th	3	1.67	0.62	29th	4
September	3.22	1.28	1st	6	3.67	1.27	21st	7	5.90	1.00	23rd	11	1.75	0.86	21st	5
October	2.68	1.69	28th	4	8.03	2.71	8th	12	4.46	1.25	8th	8	2.41	1.60	28th	5
November	5.16	1.27	26th	13	4.47	1.89	27th	5	0.75	0.60	15th	2	1.19	0.71	29th	4
December	3.55	0.82	7th	11	1.92	1.65	10th	2	2.95	1.60	29th	3	3.86	1.26	12th	8
Total	57.93	6.89	2-5-16	111	59.30	4.14	2-5-16	93	49.12	1.85	24-4-16	94	54.14	4.53	14-4-16	88

TABLE XXIX.

Average Mean Temperature, Zanzibar.

Year.	Maximum	Minimum.
1909	84·9	75·9
1910	84·4	76·4
1911	84·3	76·3
1912	85·2	76·6
1913	84·9	76·4
1914	86·2	77·5
1915	85·7	77·1
1916	85·1	76·4
	* 85·1	* 76·6

* Average for 8 years 1909-1916.

SECTION VIII.

PUBLIC GARDENS.

The expenditure under the various sub-heads of the Public Gardens Department is shown in Table No. 30.

The Victoria Garden Hall was used free of charge several times during the year for giving concerts, etc., to raise money for charitable purposes.

During the year a young hippopotamus which was brought across from the Mainland, was housed in the Garden and was the centre of a considerable amount of interest.

The Recreation Park continues to be a most popular place for the evening games of large numbers of Indians and natives.

TABLE XXX.

Public Gardens Department Revenue and Expenditure, 1916.

EXPENDITURE.			
Sub-head		Estimate Rs	Actual Rs.
Personal Emoluments	...	4,104	2,690
Contingencies	... ..	350	214
Electric Lighting of Hall etc.	...	375	259
Maintenance of Gardens etc.	...	6,300	6,169
Total Rs....		11,129	9,332

REVENUE.

From all sources	394
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F. C. McCLELLAN,
Director of Agriculture.

Zanzibar, 6th December, 1917.

